

# Shoemaker Bridge Replacement Project



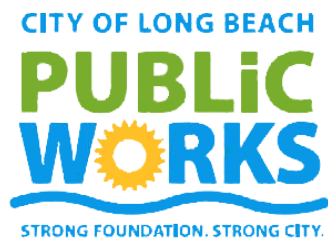
## Visual Assessment Report

07-LA-710 PM6.0/6.4

EA: 27300

SCH No. 2016041007

April 2018



*This page is intentionally blank.*

# VISUAL IMPACT ASSESSMENT

## Shoemaker Bridge Replacement Project

---

April 2018

### California Department of Transportation

District 7, Los Angeles County

City of Long Beach, California

7-LA-710-6.0-6.4

EA 273000



Prepared by:

Date:

6/8/2018

April Cottini  
HDR Engineering  
License No. 5902

Approved by:

Date:

7-1-18

George Olguin  
License No. 4333  
Caltrans District Landscape Architect  
Landscape Architect Division  
Caltrans District 7

*Statement of Compliance:* Produced in compliance with National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements, as appropriate, to meet the level of analysis and documentation that has been determined necessary for this project.

*This page is intentionally blank.*

## TABLE OF CONTENTS

<b>I. PURPOSE OF STUDY</b> .....	<b>1</b>
<b>II. PROJECT DESCRIPTION</b> .....	<b>1</b>
<b>III. PROJECT LOCATION AND SETTING</b> .....	<b>7</b>
<b>IV. ASSESSMENT METHOD</b> .....	<b>7</b>
<b>V. VISUAL ASSESSMENT UNITS AND KEY VIEWS</b> .....	<b>7</b>
Visual Assessment Units.....	7
Visual Assessment Unit 1 (VAU-1): North .....	8
Visual Assessment Unit 2 (VAU-2): South .....	8
Key Views .....	8
<b>VI. VISUAL RESOURCES AND RESOURCE CHANGE</b> .....	<b>13</b>
Visual Resources.....	13
Visual Character.....	13
Visual Quality.....	14
Resource Change.....	16
<b>VII. VIEWERS AND VIEWER RESPONSE</b> .....	<b>16</b>
Types of Viewers .....	17
Highway Neighbors (Views <i>to</i> the Road).....	17
Highway Users (Views <i>from</i> the Road) .....	17
Viewer Response .....	17
Viewer Exposure .....	17
Viewer Sensitivity .....	18
Group Viewer Response .....	19
<b>VIII. VISUAL IMPACT</b> .....	<b>19</b>

Visual Impacts by Visual Assessment Unit (VAU).....	20
Visual Assessment Unit 1 (VAU-1).....	21
Visual Assessment Unit 2 (VAU-2).....	30
VISUAL ASSESSMENT UNIT IMPACT SUMMARY.....	35
<b>IX. PROJECT VISUAL IMPACT SUMMARY.....</b>	<b>35</b>
Permanent Visual Impacts .....	35
Alternative 1 (No Build).....	35
Build Alternatives 2 and 3 (Design Options A and B) .....	35
Temporary Visual Impacts.....	37
Alternative 1 (No Build).....	37
Build Alternatives 2 and 3 (Design Options A and B) .....	37
<b>X. CUMULATIVE VISUAL IMPACT .....</b>	<b>37</b>
<b>XI. AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES.....</b>	<b>38</b>
<b>XII. CONCLUSIONS .....</b>	<b>39</b>

## LIST OF FIGURES

Figure 1. Regional Location .....	3
Figure 2. Project Limits.....	5
Figure 3. Key View Locations .....	11
Figure 4. Visual Impact Assessment Process .....	20
Figure 5. Key View 1 - Existing Condition.....	22
Figure 6. Key View 1 Photorealistic Simulation – Alternative 2 (Design Options A and B).....	22
Figure 7. Key View 1 Photorealistic Simulation – Alternative 3 (Design Options A and B).....	23
Figure 8. Key View 2 - Existing Condition.....	25
Figure 9. Key View 2 Photorealistic Simulation – Alternative 2 Design Option A.....	25
Figure 10. Key View 2 Photorealistic Simulation – Alternative 3 Design Option A.....	26
Figure 11. Key View 2 Photorealistic Simulation – Alternative 2 Design Option B.....	26
Figure 12. Key View 2 Photorealistic Simulation – Alternative 3 Design Option B.....	27
Figure 13. Key View 3 - Existing Condition.....	29
Figure 14. Key View 4 - Existing Condition.....	31
Figure 15. Key View 5 - Existing Condition.....	33
Figure 16. Key View 5 Photorealistic Simulation .....	33

## LIST OF TABLES

Table 1. Visual Impact Ratings Using Viewer Response and Resource Change.....	20
Table 2. Summary of Key View Narrative Ratings.....	35

*This page is intentionally blank.*



# VISUAL IMPACT ASSESSMENT

## Shoemaker Bridge Replacement Project

### I. PURPOSE OF STUDY

The purpose of this visual impact assessment (VIA) is to document potential visual impacts caused by the proposed project and propose measures to lessen any detrimental impacts that are identified. Visual impacts are demonstrated by identifying visual resources in the area within the project limits, measuring the amount of change that would occur as a result of the proposed project, and predicting how the affected public would respond to or perceive those changes.

### II. PROJECT DESCRIPTION

The City of Long Beach (City), in cooperation with the California Department of Transportation (Caltrans), is proposing to replace the Shoemaker Bridge (West Shoreline Drive) in the City of Long Beach, California. A regional location map is included in Figure 1. The Shoemaker Bridge Replacement Project (Project or proposed Project) is an Early Action Project (EAP) of the Interstate 710 (I-710) Corridor Project and is located at the southern end of State Route 710 (SR-710).

The City is the Lead Agency under the California Environmental Quality Act (CEQA) and Caltrans is the Lead Agency under the National Environmental Policy Act (NEPA) as assigned by the Federal Highway Administration (FHWA), in accordance with NEPA (42 United States Code [USC] 4321 et seq.); and the Council on Environmental Quality (CEQ) Regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500–1508).

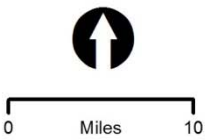
Three alternatives, a No Build Alternative (Alternative 1), and two build alternatives (Alternatives 2 and 3) are being evaluated as part of the proposed Project. Alternatives 2 and 3 would replace the existing Shoemaker Bridge over the LA River with a new bridge constructed just south of the existing bridge. In both Alternatives 2 and 3, the Shoemaker Bridge would accommodate bicycle and pedestrian use and include the evaluation of design options for a roundabout (Design Option A) or a “Y” intersection (Design Option B) at the easterly end of the new bridge. The primary difference between Alternatives 2 and 3 is Alternative 2 includes repurposing a portion of the existing Shoemaker Bridge for nonmotorized transportation and recreational use, and Alternative 3 includes the removal of the existing Shoemaker Bridge in its entirety.

Alternatives 2 and 3 would also provide improvements to associated roadway connectors to downtown Long Beach and along West Shoreline Drive from SR-710, as well as improvements along portions of 3rd, 6th, and 7th Streets, and West Broadway from Cesar E. Chavez Park to Magnolia Avenue. The proposed improvements may include additional street lighting; restriping; turn lanes; and bicycle, pedestrian, and streetscape improvements. The Project also includes the removal of the Golden Shore grade separation over West Shoreline Drive and modifications along Golden Shore to create a new controlled intersection at Golden Shore and West Shoreline Drive. Additionally, the Project would evaluate street improvements

on 6th and 7th Streets from Magnolia Avenue to Atlantic Avenue and on Anaheim Street between 9th and Atlantic Avenue. As an EAP of the I-710 Corridor Project, Alternatives 2 and 3 would evaluate the impacts from the closure of the 9th and 10th Street ramp connections into downtown Long Beach. The Project limits are shown in Figure 2.

Although most of the modifications and construction would occur within the existing Caltrans or City right-of-way (ROW), a partial property acquisition, aerial easement, and temporary construction easements (TCE) from the Los Angeles County Flood Control District (LACFCD) would be required as part of the proposed Project. In addition, a small partial acquisition and a TCE may be required from an existing parking lot to complete the downtown street modifications along West Broadway. To accommodate the removal of the grade separation at Golden Shore and West Shoreline Drive, TCEs may be required along the west and east side of Golden Shore north of West Shoreline Drive, and along the south side of West Shoreline Drive east of Golden Shore.

TCEs would be required along multiple portions of the LARIO Trail to accommodate for trail connections associated with the proposed Project, and along portions of 6th Street, 7th Street, Golden Avenue, and San Francisco Avenue. The TCEs required along 6th Street and 7th Street (between Golden Avenue and Daisy Avenue) would accommodate restriping, and curb and sidewalk improvements.

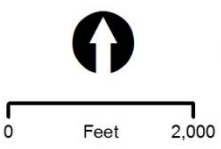
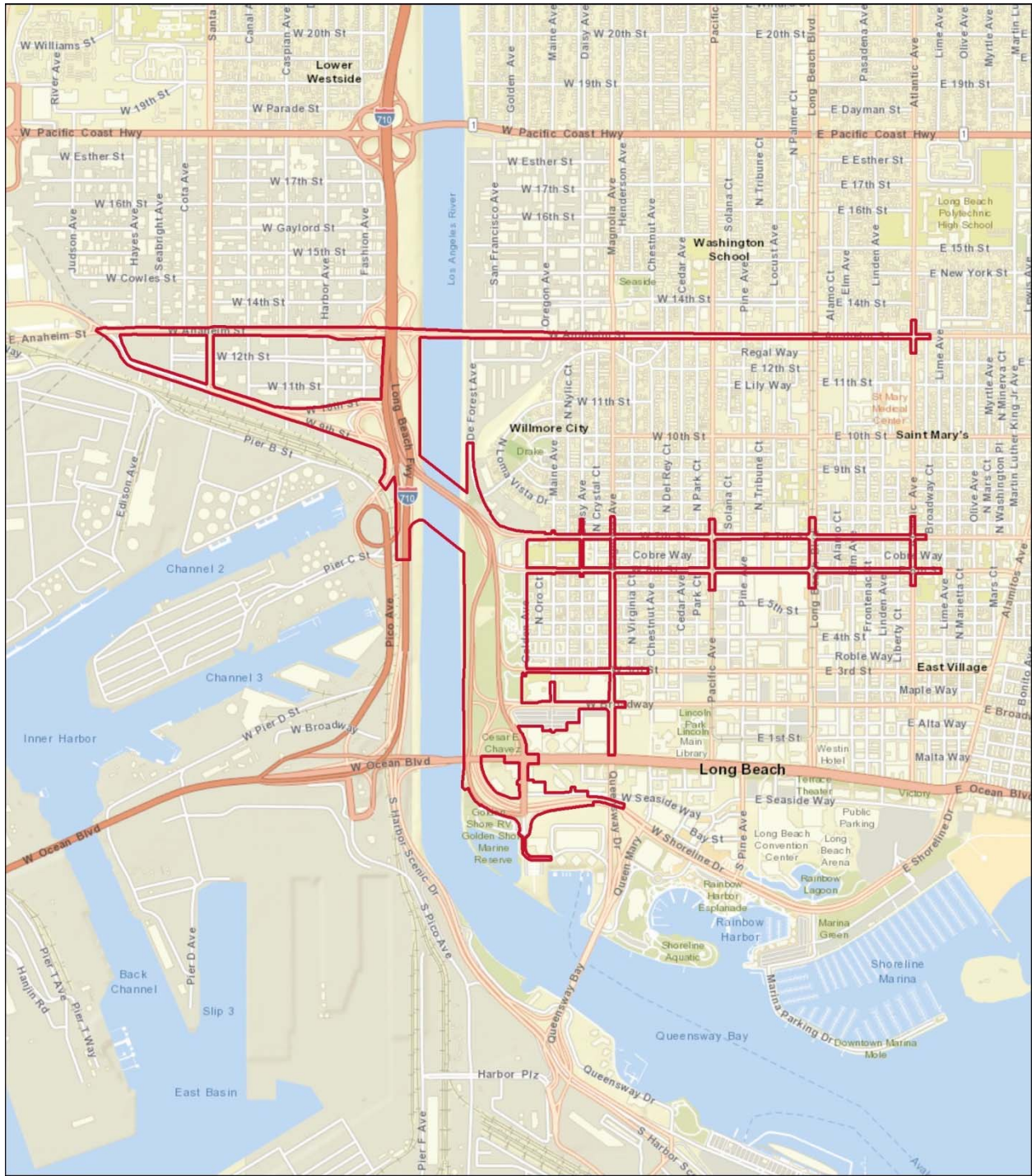


07-LA-710: PM 6.0/6.4  
EA No. 27300

*Shoemaker Bridge Replacement Project*

**Figure 1. Regional Location**

*This page is intentionally blank.*



**LEGEND**  
 Project Limits

07-LA-710: PM 6.0/6.4  
 EA No. 27300

*Shoemaker Bridge Replacement Project*

**Figure 2. Project Limits**

*This page is intentionally blank.*

### **III. PROJECT LOCATION AND SETTING**

The project location and setting provides the context for determining the type and severity of changes to the existing visual environment. The terms *visual character* and *visual quality* are defined below and are used to further describe the visual environment. The project setting is also referred to as the corridor or project corridor which is defined as the area of land that is visible from, adjacent to, and outside the highway right-of-way, and is determined by topography, vegetation, and viewing distance.

The proposed Project is located at the southern end of SR-710 in the City of Long Beach in Los Angeles County, California and is bisected by the LA River. The proposed Project is located within the Mediterranean coastal zone of southern California. The landscape is characterized by developed coastal shoreline urbanized with asphalt, grass, and trees. The land uses within the project corridor are primarily mixed urban residential and open space; but also includes areas of industrial, parks and recreation, commercial, public facilities, transportation and utilities, and water.

The proposed Project does not include any scenic resources and is not within a designated State Scenic Highway; therefore, the project is not required to complete a Scenic Resource Evaluation as defined by Caltrans.

The southernmost portion of the Project limits, south of Ocean Boulevard, is located within the California Coastal Commission (CCC) jurisdiction. The City of Long Beach prepared a Local Coastal Program (LCP) which was certified in 1980 by the CCC and has been amended multiple times since to be consistent with the California Coastal Act. The City's adopted LCP designates the City as the primary authority to regulate development and to issue Coastal Development Permits (CDPs) for projects requiring discretionary approval within its jurisdiction that are consistent with the LCP. The City's LCP adopted these goals and policies which aim: to maximize public access to recreational opportunities along the coast; protect lower cost visitor, housing and recreational facilities; and increase recreational boating and other uses of coastal waters. The Project is located in the Downtown Shoreline sub-area of the LCP which is characterized as mid- to high-rise office and residential buildings and large scale public recreation and entertainment facilities. The LCP adopted goals and policies to ensure compliance with the California Coastal Act, including those to protect visual and aesthetic coastal resources.

### **IV. ASSESSMENT METHOD**

Visual impacts are demonstrated by identifying visual resources in the project limits, measuring the amount of change that would occur as a result of the project, and predicting how the affected public would respond to or perceive those changes. This VIA follows the guidance outlined in the publication *Visual Impact Assessment for Highway Projects* published by the FHWA in March 1981.

### **V. VISUAL ASSESSMENT UNITS AND KEY VIEWS**

#### **Visual Assessment Units**

The area within the Project limits was divided into a series of "outdoor rooms" or visual assessment units (VAUs). Each VAU has its own visual character and visual quality. It is typically defined by the limits of a

particular viewshed. For this Project, the following two VAUs and their associated key views have been identified:

### **Visual Assessment Unit 1 (VAU-1): North**

Visual Assessment Unit 1 (VAU-1) is located in the northern portion of the project area. VAU-1 is generally defined by areas of the Project limits north of 4th Street to the northern boundaries of the Project limits along West Anaheim Street. VAU-1 is generally flat and consists of the existing Shoemaker Bridge and its on- and off-ramps. Surrounding the existing Shoemaker Bridge are industrial uses to the north, the LA River and LARIO Trail (Class I bike path) to the west, residential developments, existing Shoemaker Bridge on- and off-ramps, and Drake Park to the east, and the northern portion of Cesar E. Chavez Park to the south. The visual character within VAU-1 can be described as primarily developed with many linear horizontal elements comprising the view, including the existing Shoemaker Bridge. No prominent natural landforms are visible within VAU-1.

### **Visual Assessment Unit 2 (VAU-2): South**

VAU-2 is located in the southern portion of the Project limits. VAU-2 is generally defined by areas of the Project limits south of 4<sup>th</sup> Street to the southern boundaries of the Project limits along Golden Shore. VAU-2 is generally flat and includes Cesar E. Chavez Park and local streets. Surrounding development includes a combination of commercial and residential (including high-rise residential), a high-rise hotel along the eastern and southern portions of the VAU, the LA River and LARIO Trail (Class I bike path) to the west, and Cesar E. Chavez Park, Cesar Chavez Elementary School, and West Shoreline Drive within the northern portion of VAU-2. Uses within VAU-2 are primarily recreational, commercial, and residential containing some residential and commercial high-rise structures. The visual character can be described as generally flat with many horizontal lines and diverse with a variety of textures with the scale of Cesar E. Chavez Park and other natural elements. No prominent natural landforms are visible within VAU-2.

### **Key Views**

Because it is not feasible to analyze all the views in which the proposed Project would be seen, it is necessary to select a number of key views associated with VAUs that would most clearly demonstrate the change in the project's visual resources. Key views also represent the viewer groups that have the highest potential to be affected by the Project, considering exposure and sensitivity.

Five Key View locations have been identified to represent the visual and aesthetic character of the project setting within the VAUs defined above and shown in Figure 3. The Key Views were selected to exhibit areas of the Project showing significant construction and/or operational impacts of the Project for both Build Alternatives 2 and 3, and Design Options A and B. Seven photorealistic simulations were developed to show projected change within three of the key views. Photorealistic simulations help convey what will be changed and what will not be changed by the proposed Project under Alternatives 2 and 3 (Design Options A and B) in the visual environment.

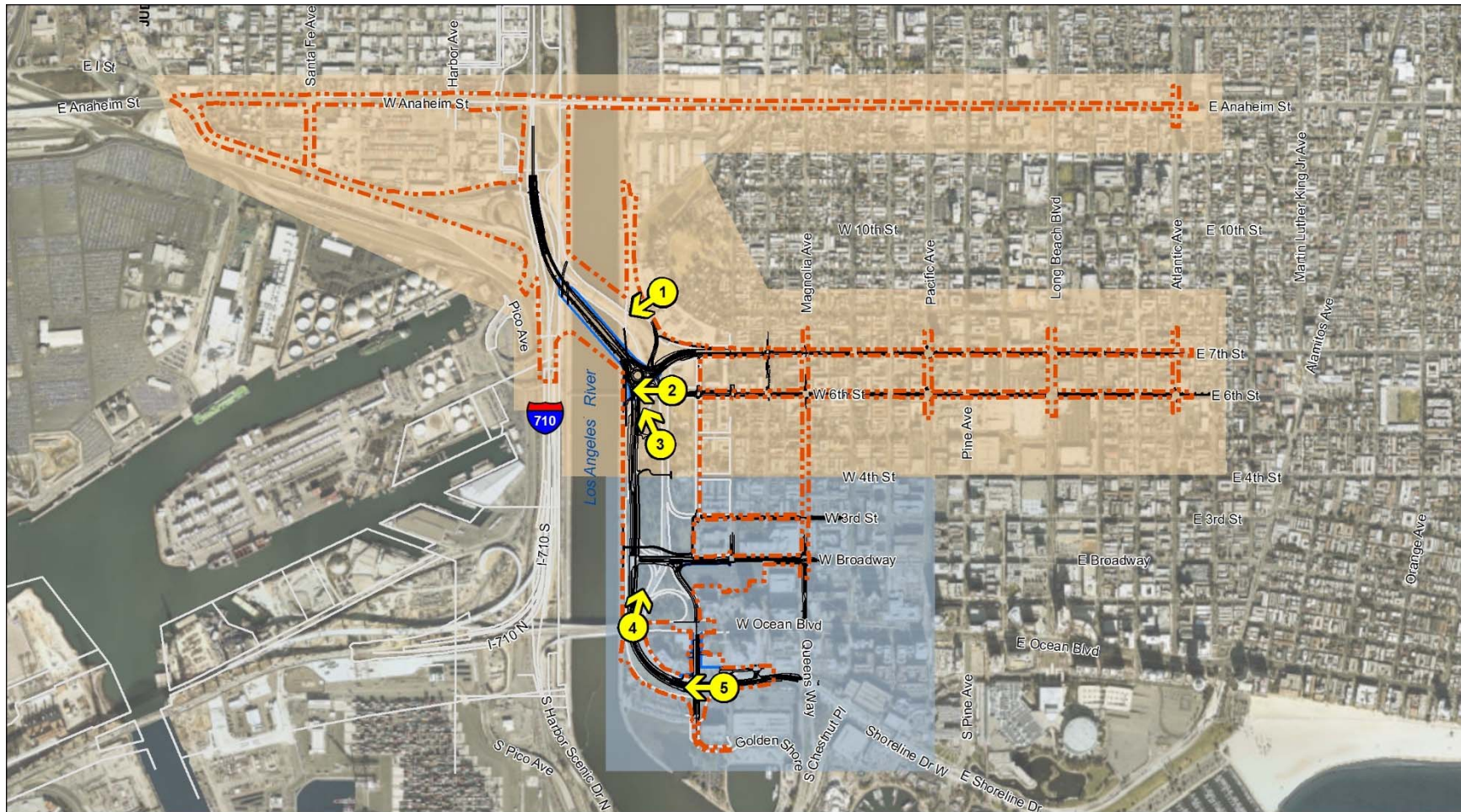
- **Key View 1:** Key View 1, located within VAU-1, is taken from the intersection of Fairbanks Avenue and West Chester Place, just west of a residential neighborhood. Key View 1 is to the southwest toward the existing Shoemaker Bridge and embankment along the LA River, including LARIO trail



(Class I bike path). Fairbanks Avenue dominates the foreground. The middle ground is composed of the vegetated embankment along the LA River, the LA River, and a utility pole and wires. The LARIO Trail moves from the middle ground to the background. The existing Shoemaker Bridge and a billboard complete the remainder of the background.

- **Key View 2:** Key View 2, located within VAU-1, is taken from the LARIO Trail approximately 470 feet west of the intersection of San Francisco Avenue and West 6<sup>th</sup> Street. Key View 2 is to the north-northeast towards the existing Shoemaker Bridge, in as well as the West Shoreline Drive connector. The foreground is dominated by the LARIO Trail which also extends in to the middle ground. The middle ground also shows the open space between the existing Shoemaker Bridge supporting structures and the LARIO Trail. The 6<sup>th</sup> Street Pump Station is also present within the undeveloped area beneath and adjacent to existing Shoemaker Bridge and its ramps and bridge piers.
- **Key View 3:** Key View 3, located within VAU-1, is taken from within Cesar E. Chavez Park on the existing northbound (NB) West Shoreline Drive adjacent to the existing Southern California Edison (SCE) substation, approximately 360 feet west of the intersection of 5<sup>th</sup> Street and Golden Avenue. Key View 3 is to the northwest showing the mature trees, with the existing 6<sup>th</sup> Street off-ramp in the background. The foreground and middle ground are comprised of NB Shoreline Drive and an unusable portion of Cesar E. Chavez Park between NB and southbound (SB) Shoreline Drive.
- **Key View 4:** Key View 4, located within VAU-2, is taken from a grade-separated portion of Ocean Boulevard over West Shoreline Drive, approximately 210 feet east of the LA River. Key View 4 is to the north showing the Cesar E. Chavez Park and SB West Shoreline Drive in the foreground extending through the view into the background. A partial view of NB Shoreline Drive is visible within the right section of the foreground. The LA River can also be seen in the middle ground on the left portion of the view; however, the LA River is primarily obscured by mature trees.
- **Key View 5:** Key View 5, located within VAU-2, is taken from SB West Shoreline Drive, approximately 200 feet east of the grade separation at Golden Shore and West Shoreline Drive. Key View 5 is to the west showing the existing grade separation at Golden Shore and West Shoreline Drive in the foreground, a landscaped median between SB West Shoreline Drive and the existing on-ramp from SB West Shoreline Drive onto Golden Shore Drive in the middle ground, and mature trees and the grassy embankment in the background.

*This page is intentionally blank.*



07-LA-710: PM 6.0/6.4  
EA No. 27300

*Shoemaker Bridge Replacement Project*

**Figure 3. Key View Locations**

*This page is intentionally blank.*

## VI. VISUAL RESOURCES AND RESOURCE CHANGE

*Resource change* is assessed by evaluating the visual character and the visual quality of the visual resources that comprise the project corridor before and after the construction of the proposed Project under Alternatives 2 and 3 (Design Options A and B). Resource change is one of the two major variables in the equation that determine visual impacts (the other is *viewer response*, discussed below in *Section VII Viewers and Viewer Response*).

### Visual Resources

Visual resources of the project setting are defined and identified below by assessing visual character and visual quality in the project corridor.

#### Visual Character

Visual character includes attributes such as form, line, color, texture, and is used to describe, not evaluate; that is these attributes are neither considered good nor bad. However, a change in visual character can be evaluated when it is compared with the viewer response to that change. Changes in visual character can be identified by how visually compatible a proposed project would be with the existing condition by using visual character attributes as an indicator. For this project the following attributes were considered:

- Line - edges or linear definition
- Form – visual mass or shape
- Color – reflective brightness (light, dark) and hue (red, green)
- Texture – surface coarseness
- Dominance – position, size, or contrast
- Scale – apparent size as it relates to the surroundings
- Diversity – a variety of visual patterns
- Continuity – uninterrupted flow of form, line, color, or textural pattern

The existing visual character of the area within the Project limits is dominated by transportation and parks and recreational uses. Existing features within the project area contributing to the existing visual form are the existing Shoemaker Bridge, ramps and connectors, local streets, bike paths, the LA River, LA River embankments, Cesar E. Chavez Park, and designated open space.

The existing Shoemaker Bridge and other transportation features create horizontal lines throughout the Project limits. Continuity within the Project limits is accomplished by the gray color and smooth texture from the transportation features, including the existing Shoemaker Bridge, and the green and coarse or rough texture of the vegetation within Cesar E. Chavez Park and surrounding vegetation. The LA River and LARIO Trail add to the diversity of features within the Project limits. However, limited diversity of visual patterns exists within the Project limits due the repetitive nature of the transportation surfaces and park space or vegetation. The scale of the existing Shoemaker Bridge is rather small and does not dominate visually within the Project limits.

Proposed Project changes will be compatible with the existing visual character. Both Build Alternatives 2 and 3 (with either Design Option A or B) will construct a new Shoemaker Bridge and add new ramps and connectors, remove the grade separation at Golden Shore and West Shoreline Drive creating an at-grade intersection, and remove old connectors to the existing Shoemaker Bridge. These changes will remove and add linear features to the Project limits and create new and remove old forms. The bridge design may introduce vertical linear features, depending on final design selected by the City with input from stakeholders.

The scale and dominance of Cesar E. Chavez Park within the Project limits will increase with the incorporation of NB West Shoreline Drive in the existing location of SB West Shoreline Drive. The proposed Shoemaker Bridge may also increase in scale and dominance within the view, depending on final bridge design selected. A separate planned capital improvement project, identified as the Long Beach Municipal Urban Stormwater Treatment (LB MUST), will be completed prior to the start of construction for the proposed Project, and will add built and natural elements, such as the treatment facility, trails, post treatment detention ponds, and additional vegetation. LB MUST will rezone the area beneath the existing and proposed Shoemaker Bridge to parks and recreational land use as a part of the Project. A portion of the existing NB side of Shoemaker Bridge will be repurposed for nonmotorized transportation and recreational use under Alternative 2 (Design Options A and B). These changes within the Project limits and increased park space will create more continuity and natural textures. Diversity will have a moderately low amount of change due to the transportation and built nature of the area. Contrasting color between the grays of the roadway and bridges with green park space and recreational facilities will be compatible with the existing visual character. Alternative 3 (Design Options A and B) will include the removal of the existing Shoemaker Bridge, which is also compatible with the existing visual character.

## Visual Quality

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the project corridor. Public attitudes validate the assessed level of quality and predict how changes to the project corridor can affect these attitudes. This process helps identify specific methods for addressing each visual impact that may occur as a result of the Project. Visual quality is assessed by the three attributes on a five point scale – low, moderately low, moderate, moderately high, high. The three criteria for evaluating visual quality are defined below:

**Vividness** is the extent to which the landscape is memorable and is associated with distinctive, contrasting, and diverse visual elements. In this VIA, vividness is rated on a five point scale ranging from low (not memorable) to high (strikingly memorable).

**Intactness** is the integrity of visual features in the landscape and the extent to which the existing landscape is free from non-typical visual intrusions. In this VIA, intactness is rated on a five point scale of low (much encroachment or degradation) to high (low encroachment or degradation).

**Unity** is the extent to which all visual elements combine to form a coherent, harmonious visual pattern. In this VIA, unity is rated on a five point scale ranging from low (little or poor integration) to high (superlative integration).

Existing features within the area of the Project limits contributing to the existing visual quality are adjacent residential and commercial developments, the existing Shoemaker Bridge, ramps and connectors, local streets, bike paths, the LA River, LA River embankments, Cesar E. Chavez Park, and planned capital improvement project LB MUST. The proposed Project crosses through the Drake Park/Willmore City Historic District, a locally designated historic district in the City. Under both Build Alternatives 2 and 3 (Design Options A and B), the portions of the Project that are in the district will be limited to roadway restriping and upgrades to existing traffic signals only. Therefore, the proposed Project would not result in a substantial change to the district as a whole. The work would be very minor and limited to the City right-of-way. No historic landscapes or State or locally designated landmarks are located within the Project limits. Therefore, the visual quality of the existing corridor will not be altered by the proposed Project.

Many visual elements within the Project limits create diverse features; however, these features are not unique or strikingly memorable. Therefore, the overall vividness within the Project limits is considered moderate. Features contributing to the unity of the landscape include the designated open space and the general commercial, residential, and educational uses surrounding the area of the Project limits. As a result, the unity of the Project limits is considered moderately low.

Features considered as encroachment elements in the assessment of the area of the Project that limits intactness include built elements such as the existing Shoemaker Bridge, LA River embankments, local street and freeway signage/billboards, and utility poles and wires that infringe into the Project viewshed.

Proposed project features include incorporation of roadways into new park space within Cesar E. Chavez Park, a new Shoemaker Bridge constructed just south of the existing Shoemaker Bridge, and realignment of existing local downtown streets and intersections. Therefore, the intactness is considered moderately low.

Alternatives 2 and 3 (Design Options A and B) propose a net increase in usable park space within Cesar E. Chavez Park, which will add to the unity and intactness within the Project limits and surrounding area. Alternative 2 proposes to construct a new Shoemaker Bridge south of the existing Shoemaker Bridge and repurpose a portion of NB existing Shoemaker Bridge into non-motorized transportation and recreational use space. While the new bridge will add another large form and more line features adjacent to the existing form of the existing Shoemaker Bridge, the overall visual quality within the Project limits would not degrade the transportation built environment of the view; both Build Alternatives 2 and 3 (under either Design Option A or B) will be compatible with the existing visual quality and built environment of the Project limits.

## Resource Change

### ***Alternative 1 (No Build)***

Alternative 1 (No Build) will not result in any construction activities associated with the Build Alternatives. The proposed Shoemaker Bridge will not be constructed and will not provide a new safer bridge providing access to the City. Planned capital improvement project LB MUST will be completed separately from this project and may create a resource change to the project limits.

### ***Build Alternative 2 (Design Options A and B)***

The proposed Shoemaker Bridge will positively affect the vividness within the Project limits with the construction of the new Shoemaker Bridge, since it will increase the diverse visual elements within the area of the Project limits. In addition, new connectivity of Cesar E. Chavez Park will create a more coherent view, creating an increase in unity to moderately high. The proposed Project changes will increase the continuity and reduce encroachment with the removal of NB Shoreline Drive and the incorporation of that vacant space left by the road within Cesar E. Chavez Park; thereby creating an increase in intactness to moderately high. The proposed Project will also remove non-typical intrusions, or elements that seem visually out of place, such as the purple 6<sup>th</sup> Street Pump Station to be relocated. As a result, the proposed Project will increase vividness, unity, and intactness within the Project limits.

Based on the discussion above, Build Alternative 2 (Design Options A and B) will result in a moderately high resource change within the Project limits. Visual character within the Project limits under Build Alternative 2 (Design Options A and B) will not be adversely impacted, but will result in a moderately high change in visual quality.

### ***Build Alternative 3 (Design Options A and B)***

Build Alternative 3 (Design Options A and B) will result in a moderately high resource change within the Project limits, because the same view changes will occur under this alternative for both design options. The primary difference between Build Alternative 2 and Build Alternative 3 is the that Build Alternative 3 will remove existing the Shoemaker Bridge.

## **VII. VIEWERS AND VIEWER RESPONSE**

The population affected by the Project is composed of *viewers*. Viewers are people whose views of the landscape may be altered by the proposed Project—either because the landscape itself has changed or their perception of the landscape has changed.

Viewers, or more specifically the response viewers have to changes in their visual environment, are one of two variables that determine the extent of visual impacts that will be caused by the construction and operation of the proposed Project under Alternatives 2 and 3 (Design Options A and B). The other variable is the change to visual resources discussed earlier in *Section VI Visual Resources and Resource Change*.



## Types of Viewers

There are two major types of viewer groups for highway projects: highway neighbors and highway users. Each viewer group has their own particular level of *viewer exposure* and *viewer sensitivity*, resulting in distinct and predictable visual concerns for each group which help to predict their responses to visual changes.

### Highway Neighbors (*Views to the Road*)

Highway neighbors are people who have views *to* the roadway. They can be subdivided into different viewer groups by land use. For example, residential, commercial, industrial, retail, institutional, civic, educational, recreational, and agricultural land uses may generate highway neighbors or viewer groups with distinct reasons for being in the corridor and therefore having distinct responses to changes in visual resources. For this project, the following highway neighbors were considered:

- Residents
- Business Operators
- Recreation Users

### Highway Users (*Views from the Road*)

Highway users are people who have views *from* the roadway. They can be subdivided into different viewer groups in two different ways—by mode of travel or by reason for travel. For example, subdividing highway users by mode of travel may yield pedestrians, bicyclists, transit riders, car drivers and passengers, and truck drivers. Dividing highway users or viewer groups by reason for travel creates categories like tourists, commuters, and haulers. It is also possible to use both mode and reason for travel simultaneously, creating a category like *bicycling tourists*, for example. For this project, the following highway users were considered:

- Commuters
- Bicyclists

## Viewer Response

Viewer response is a measure or prediction of the viewer's reaction to changes in the visual environment and has two dimensions as previously mentioned, viewer exposure and viewer sensitivity.

### Viewer Exposure

Viewer exposure is a measure of the viewer's ability to see a particular object. Viewer exposure has three attributes: location, quantity, and duration. *Location* relates to the position of the viewer in relationship to the object being viewed. The closer the viewer is to the object, the more exposure. *Quantity* refers to how many people see the object. The more people who can see an object or the greater frequency an object is seen, the more exposure the object has to viewers. *Duration* refers to how long a viewer is able to keep an object in view. The longer an object can be kept in view, the more exposure. High viewer exposure helps predict that viewers will have a response to a visual change.

Highway neighbors will have a moderate response. Highway neighbors' exposure to views resulting from the proposed Project under Alternatives 2 and 3 (Design Options A and B) will be of longer duration and many will have closer views of the changes as they occur. Project elements with the greatest effect on viewer response are the removal of NB West Shoreline and the incorporation of the space into Cesar E. Chavez Park, construction of the proposed Shoemaker Bridge, the repurposing of a portion of existing NB Shoemaker Bridge under Alternative 2 or the removal of existing Shoemaker Bridge under Alternative 3, and the improvements within the area as a part of the LB MUST project. Highway neighbors will experience changes to nearby roadways and existing landscaped buffers. Temporary construction impacts will further affect the highway neighbor viewer response.

Highway users will have a moderately low response to the proposed project compared to highway neighbors, since highway users' viewer exposure will have a limited duration of the view and their resulting viewer response would be moderate-low. Temporary construction activities and long-term operational changes will be in close view; however, highway users will have exposure to corridor changes as they are implemented.

### **Viewer Sensitivity**

Viewer sensitivity is a measure of the viewer's recognition of a particular object. It has three attributes: activity, awareness, and local values. *Activity* relates to the preoccupation of viewers—are they preoccupied, thinking of something else, or are they truly engaged in observing their surroundings. The more they are actually observing their surroundings, the more sensitivity viewers will have of changes to visual resources. *Awareness* relates to the focus of view—the focus is wide and the view general or the focus is narrow and the view specific. The more specific the awareness, the more sensitive a viewer is to change. *Local values* and attitudes also affect viewer sensitivity. If the viewer group values aesthetics in general or if a specific visual resource has been protected by local, state, or national designation, it is likely that viewers will be more sensitive to visible changes. High viewer sensitivity helps predict that viewers will have a high concern for any visual change.

Both highway users and neighbors will experience moderately low viewer sensitivity to the proposed Project. The Project will raise awareness with the addition of the proposed Shoemaker Bridge and new connectors. However, proposed Project improvements under Alternatives 2 and 3 (Design Options A and B) will be compatible with the existing views resulting in similar overall viewer sensitivity. A viewer traveling on the existing Shoemaker Bridge and its ramps and connectors have no views of scenic elements due to the high urban land uses immediately nearby. Therefore, the proposed Shoemaker Bridge will not result in a view of scenic elements. Highway neighbors will have a higher concern for scenic quality because these viewers have an investment in the overall quality of their property and the surrounding area. Although temporary construction activities may have a higher temporary viewer sensitivity, the proposed Project under Alternatives 2 and 3 (Design Options A and B) will result in the net increase of usable park land within Cesar E. Chavez Park, which will provide higher intactness and result in a positive moderately high viewer sensitivity to both highway users and neighbors.

## **Group Viewer Response**

The narrative descriptions of viewer exposure and viewer sensitivity for each viewer group were merged to establish the overall viewer response of each group.

Highway neighbors will have a moderate response and highway users will have a moderately low response to the proposed Project. Highway neighbors will be slightly more affected by the proposed Project because they will have more exposure to the Project and greater sensitivity. Compared to highway neighbors, highway users' viewer exposure will have a limited duration of the view and their resulting viewer response would be moderately low. Temporary construction activities and the permanent addition of hardscape through the construction of the new bridge and potential roundabout or "Y" intersection structures will be in close view.

Depending on traffic flow, duration for highway viewers will be substantially shorter than those of highway neighbors. Project elements under Alternatives 2 and 3 (Design Options A and B) with the greatest effect on viewer response are the removal of NB West Shoreline and connection of Cesar E. Chavez Park with the green space between NB and SB West Shoreline Drive, construction of the proposed Shoemaker Bridge, removal of the existing Shoemaker Bridge (Alternative 3 Design Options A and B), and the improvements as part of the LB MUST project. Temporary construction impacts will further affect the viewer response resulting in moderately high viewer sensitivity. Both highway users and neighbors will experience moderately low viewer sensitivity to the proposed project. The proposed Project under Alternatives 2 and 3 (Design Options A and B) will raise awareness, a component of assessing viewer sensitivity, with the addition of the proposed Shoemaker Bridge. However, other improvements will be compatible with the existing views resulting in similar overall viewer sensitivity.

## **VIII. VISUAL IMPACT**

Visual impacts are determined by assessing changes to the visual resources and predicting viewer response to those changes. These impacts can be beneficial or detrimental. Cumulative impacts and temporary impacts due to the contractor's operations are also considered. A generalized visual impact assessment process is illustrated in the following diagram (Figure 4).

**Figure 4. Visual Impact Assessment Process**

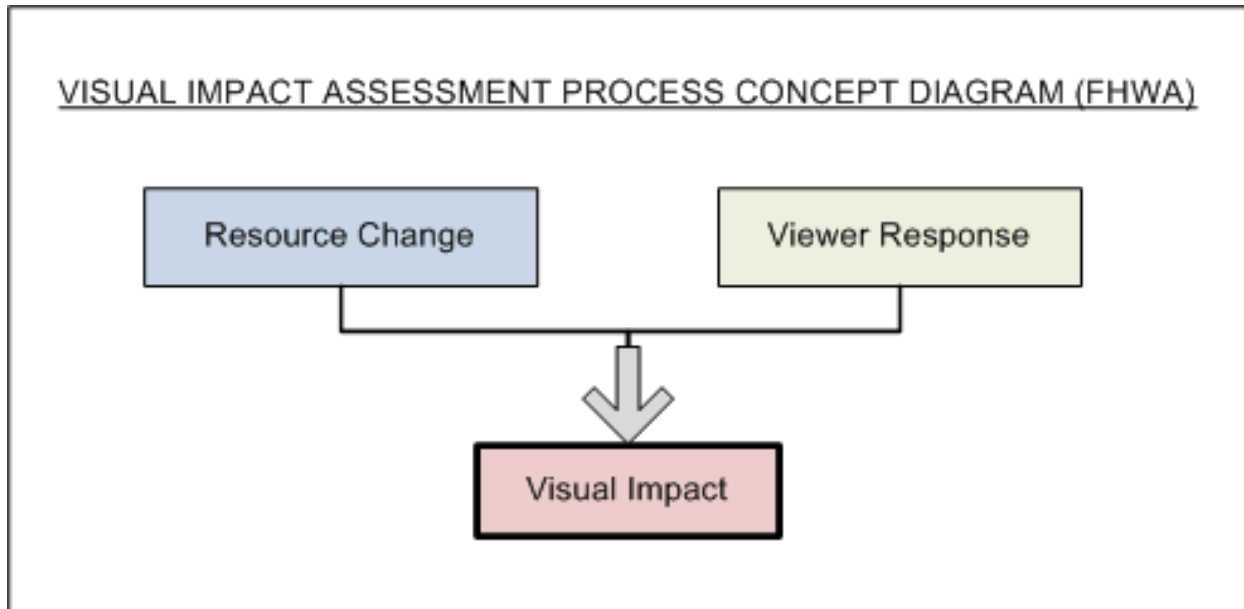


Table 1 provides a reference for determining levels of visual impact by combining resource change and viewer response.

**Table 1. Visual Impact Ratings Using Viewer Response and Resource Change**

		Viewer Response (VR)				
		Low (L)	Moderate-Low (ML)	Moderate (M)	Moderate-High (MH)	High (H)
Resource Change (RC)	Low (L)	L	ML	ML	M	M
	Moderate-Low (ML)	ML	ML	M	M	MH
	Moderate (M)	ML	M	M	MH	MH
	Moderate-High (MH)	M	M	MH	MH	H
	High (H)	M	MH	MH	H	H

**Visual Impacts by Visual Assessment Unit (VAU)**

Because it is not feasible to analyze all the views in which the proposed Project would be seen, it is necessary to select a number of key views that would most clearly demonstrate the change in the project’s visual resources. Key views also represent the viewer groups that have the highest potential to be affected by the project considering exposure and sensitivity. In addition, these key views will be analyzed for each proposed alternative.

This VIA also considers the potential impacts of Alternative 1 (No Build). Under the Alternative 1 (No Build), the Project will not result in any construction activities associated with the Build Alternatives. No

temporary or permanent impacts to the existing and future visual quality will occur. The planned capital improvement project, LB MUST, will be completed separately from this Project and may cause visual impacts to views within the Project limits.

The following section describes and illustrates visual impacts for each VAU and the key views within the unit, compares existing conditions to the proposed alternatives, and includes the predicted viewer response.

### **Visual Assessment Unit 1 (VAU-1)**

#### **KEY VIEW 1 – View to the southwest from intersection of Fairbanks Avenue and West Chester Place.**

Key View 1 focuses attention on the existing Shoemaker Bridge. Visual character within this key view is dominated by horizontal and vertical lines. From Key View 1, multiple horizontal lines are apparent from the existing Shoemaker Bridge, bridge columns, the LA River, LARIO Trail (Class I bike path), W. Chester Place, local streets and highway signage, and maintenance access roads from W. Chester Place and Fairbanks Avenue. Substantial color contrast exists between the green of the landscaped grade supporting the south end of the existing Shoemaker Bridge and the grays of the roadway, the existing Shoemaker Bridge, and other built elements within the built environment.

Unity is low due to the existing local roadways, maintenance access roads, non-vegetated open space, and the encroachment of the existing Shoemaker Bridge creating little continuity. The intactness of the view is moderately low for the industrial setting with roadways and signage dominating the scene with some vegetation. The diversity of elements within the view decreases the continuity and overall intactness. Vividness of the view is moderately low due to the existing Shoemaker Bridge creating an edge of the industrial setting next to the LA River. Therefore, the visual quality is considered moderately low.

Two photorealistic simulations have been prepared for this key view depicting the changes between Alternative 2 and Alternative 3. The first photorealistic simulation shows the proposed view under Alternative 2. The foreground will show W. Chester Place. The middle-ground is comprised of the LB MUST facility building and retaining walls that are part of the LB MUST facility. The background shows the existing Shoemaker Bridge repurposed for non-motorized transportation and recreational use, and the new Cable Stayed (Single Pylon) for the new Shoemaker Bridge, if the Cable Stayed (Single Pylon) bridge is selected.

The photorealistic simulation for Key View 1, for Alternative 3 is similar to the photorealistic simulation for Alternative 2; however, the difference is that the existing Shoemaker Bridge will be removed as a result of this alternative and no longer visible in the background.

Figure 5 shows the existing condition in Key View 1, and Figure 6 and Figure 7 illustrate the photorealistic simulations for the implementation of Alternatives 2 and 3, respectively.

**Figure 5. Key View 1 - Existing Condition**



**Figure 6. Key View 1 Photorealistic Simulation – Alternative 2 (Design Options A and B)**



Disclaimer: Aesthetic features in above photorealistic simulation are subject to change during the design phase.

**Figure 7. Key View 1 Photorealistic Simulation – Alternative 3 (Design Options A and B)**



Disclaimer: Aesthetic features in above photorealistic simulation are subject to change during the design phase.

### **Resource Change**

Proposed Project changes under Build Alternative 2 (Design Options A and B) will include the removal of existing traffic signals, billboards, utility poles and wires, and the construction of the new Shoemaker Bridge. The proposed changes under Build Alternatives 2 (Design Options A and B) will repurpose a portion of the existing Shoemaker Bridge for non-motorized transportation and recreational uses. Build Alternative 3 (Design Options A and B) will also result in the same changes; however, this alternative will remove the existing Shoemaker Bridge. In addition, the LB MUST's main building facility, to be completed separately from this project, will be visible within this view. Under both Build Alternatives, the visual quality of the existing corridor will not be altered by the proposed Project improvements. The resource change for Key View 1 will be moderately low. The new Shoemaker Bridge may introduce vertical structure element (single pylon) that will be visible in the background, if the Cable Stayed (Single Pylon) bridge is selected. Vividness will be a moderately low change. Built environmental elements will increase unity, which will have a positive moderately low change. There will be no change for intactness.

## Viewer Response

Viewer sensitivity will be moderately low due to the industrial nature of the existing setting. The primary change, the new Shoemaker Bridge, within this view is mostly obscured by the planned LB MUST facility. Alternative 2 will repurpose a portion of the existing NB Shoemaker Bridge; however, visibility of the newly repurposed bridge is limited to highway neighbors, due to the presence of the LB MUST facility. Highway neighbors will also have a limited view of the new Shoemaker Bridge, also due to the LB MUST facility obscuring most of the view of the bridge. Alternative 3 will remove the existing Shoemaker Bridge; however, as found in Alternative 2, highway neighbors will have a limited view of the existing bridge due to the LB MUST facility. Therefore, the overall viewer response is expected to be moderate for this Key View.

### **KEY VIEW 2 – View to the north-northeast from LARIO Trail, 470 feet west of the intersection of San Francisco Avenue and 6th Street.**

Key View 2 focuses on the existing Shoemaker Bridge and the West Shoreline Drive connector. Visual character within this key view is dominated by the form of the existing roadways and the existing bridge and the scale of the undeveloped and vacant space located below the existing bridge and adjacent to the LARIO Trail. Horizontal and vertical lines are formed by the roadways, fencing, supporting bridge structures, and the LARIO Trail. The scale of the existing Shoemaker Bridge is small in comparison to the surrounding roadways and bike paths. Color contrast is found within the vacant space, the purple color of the 6<sup>th</sup> Street Pump Station, and the gray transportation bike paths and roadways. Little continuity exists within this view due to the diversity of forms and textures.

The vividness of the view is moderately low with large amounts of vacant land, roadway, and bridge hardscape structures. Unity within this view is low due to the lack of coherence between the features present in the key view. The intactness scores moderately low with encroachment of the transportation uses in the form of roadways and bridge structure within the natural zone and lack of vegetation. Therefore, visual quality is considered moderately low.

Figure 8 presents the existing Key View 2. Four photorealistic simulations have been prepared for this Key View. Two simulations show Design Option A (roundabout) with Alternatives 2 and 3 (Figure 9 and Figure 10, respectively), and two simulations show Design Option B (“Y” Intersection) with Alternatives 2 and 3 (Figure 11 and Figure 12, respectively).



**Figure 8. Key View 2 - Existing Condition**



**Figure 9. Key View 2 Photorealistic Simulation – Alternative 2 Design Option A**



Disclaimer: Aesthetic features in above photorealistic simulation are subject to change during the design phase.

**Figure 10. Key View 2 Photorealistic Simulation – Alternative 3 Design Option A**



Disclaimer: Aesthetic features in above photorealistic simulation are subject to change during the design phase.

**Figure 11. Key View 2 Photorealistic Simulation – Alternative 2 Design Option B**



Disclaimer: Aesthetic features in above photorealistic simulation are subject to change during the design phase.

**Figure 12. Key View 2 Photorealistic Simulation – Alternative 3 Design Option B**



Disclaimer: Aesthetic features in above photorealistic simulation are subject to change during the design phase.

### **Resource Change**

Under Build Alternative 2 (Design Options A and B) the new Shoemaker Bridge and a new bike path on the bridge will connect and provide access to the LARIO Trail, which would be visible from this key view location. New vertical support structures for the Shoemaker Bridge (if the Cable Stay [Single Pylon] bridge is selected under Design Option A or the segmented bridge under Design Option B) and the new connectors to West Shoreline Drive and 7<sup>th</sup> Street will also be visible in the middleground. As a part of LB MUST, coastal post treatment ponds, additional vegetation, and recreational resources will be incorporated within the existing open space surrounding the supporting bridge structure for the new Shoemaker Bridge prior to construction of the proposed Project.

The proposed visual character of the Project under Alternatives 2 and 3 (Design Options A and B), will be compatible with the existing visual character. Vividness of the view will be moderately high, because the increased diversity of textures and materials as well as the contrast of colors. The supporting bridge piers of the proposed Project under Alternatives 2 and 3 (Design Options A and B), including the supporting structure of the new West Shoreline Drive and 7<sup>th</sup> Street connectors will add unity of transportation elements to the view. The proposed view has a diversity of transportation features and natural features providing improved continuity creating a moderately high rating of intactness. In addition, project features are consistent with the transportation elements within the view, and construction of a new bridge adjacent to an existing bridge within the built transportation environment. Additional structures within the open space over LB MUST post treatment detention ponds and proposed recreational uses

would be shaded by the new Shoemaker Bridge and associated structures. However, removal of existing ramps towards existing Shoemaker Bridge currently shading the area would be removed as a result of the project, lessening the shading impact within the LB MUST facility to be constructed prior to the proposed Project. Therefore, the intactness of the view will be moderately high. Based on the changes described above, the resource change of the proposed view under Alternative 2 (Design Options A and B) will be considered moderately high.

Build Alternative 3 (Design Options A and B) will result in similar resource changes as Build Alternative 2 (Design Options A and B); however, Build Alternative 3 will involve the demolition of the existing Shoemaker Bridge. The resource changes under Build Alternative 3 (Design Options A and B) are consistent with the transportation elements, construction a new bridge and removing the existing Shoemaker Bridge, within the view and the resource changes identified under Build Alternative 2 above. Therefore, the resource change for Build Alternative 3 will be considered moderately high.

### **Viewer Response**

Viewer response for bicyclists and pedestrians will be moderately low because change to their facilities will not impact their use of the bike path or obstruct their view of the LA River. New transportation elements will be visible in the middle and foreground; however, these new transportation elements are consistent with the current transportation and built environment of the view. Viewer sensitivity will be moderately low due to the new balance of transportation and natural elements now visible. Therefore, the viewer response for this key view is expected to be moderately low.

### **KEY VIEW 3 – View to the north from existing NB Shoreline Drive, adjacent to existing SCE substation.**

Key View 3 focuses on Cesar E. Chavez Park, NB Shoreline Drive and the 6<sup>th</sup> Street off-ramp. The horizontal lines and form of the existing NB West Shoreline Drive, Cesar E. Chavez Park, and 6<sup>th</sup> Street off-ramp dominate this key view. The scale or size of the roadway (NB Shoreline Drive) is comparable to the scale of the visible portion of Cesar E. Chavez Park. Natural textures and color enhance the continuity of the view. A lack of diversity exists within this view, as the view primarily consists of ornamental vegetation or roadway elements.

Continuity of the view creates a moderate vividness. The scale and color of the vegetation present on either side of the roadway provide a moderate unity to the view. Intactness is moderately high due to the flanking portions of the park on either side of the roadway. Based on the observations above, the visual quality of Key View 3 is moderate. Figure 13, below, shows the existing Key View 3.

**Figure 13. Key View 3 - Existing Condition**



### **Resource Change**

Proposed changes will remove NB Shoreline Drive and incorporate said space into Cesar E. Chavez Park, connecting the sections of park on either side of existing NB West Shoreline Drive. SB West Shoreline Drive will be improved to accommodate two-way traffic. The proposed Project under Alternatives 2 and 3 (Design Options A and B) will also remove the 6<sup>th</sup> Street off-ramp. The 7<sup>th</sup> Street off-ramp visible in the distant background under current conditions will be visible due to the removal of the NB West Shoreline Drive ramp onto Shoemaker Bridge and existing 6<sup>th</sup> Street off-ramp. However, this view will be consistent with the current view of 6<sup>th</sup> Street off-ramp. Vividness, unity, and intactness will all improve to a rating of moderately high with the incorporation of the vacant space left by the roadway into park land. Based on the resource changes described above, the resource change for Key View 3 will be considered moderately high.

### **Viewer Response**

Viewers will now have a continuous view of Cesar E. Chavez Park with the removal of NB West Shoreline Drive. Viewer exposure of highway neighbors will be limited due to the new location of newly aligned West Shoreline Drive. Therefore, the viewer exposure and sensitivity for highway users will be moderately low. Highway neighbors will have moderately high exposure to the natural environment and moderately high sensitivity to the new park space within Cesar E. Chavez Park. Viewer response for highway neighbors will be moderately high with new continuous views of the Cesar E. Chavez Park and the removal of transportation elements within the park. Therefore, the overall viewer response from this key view is expected to be moderate.

### **SUMMARY OF VISUAL IMPACTS OF VISUAL ASSESSMENT UNIT 1**

VAU-1 is centered on the visual character and resources relating to the existing Shoemaker Bridge and the improvements adjacent to the bridge. Proposed Project changes under both Build Alternatives 2 and 3

(Design Options A and B) within VAU-1, will consist of the construction of new ramps and connectors, the removal of old connectors to the existing Shoemaker Bridge, the creation of new connectors to the new bridge, the realignment of SB Shoreline Drive to accommodate two-way traffic, the removal of NB Shoreline Drive, and the incorporation of the space vacated by the former NB Shoreline Drive into Cesar E. Chavez Park. Resource changes will be experienced in the area surrounding the newly proposed Shoemaker Bridge and existing Shoemaker Bridge due to the planned capital improvement project LB MUST. Resource changes within VAU-1 will consist of new transportation elements (roadways, bridge, pedestrian/cyclists paths) and removal of some existing transportation elements; these modifications will create visual changes, however, they will not adversely affect the transportation nature of the built environment within the project limits.

The visual impact will range from moderately low to moderately high (see Table 2, Summary of Key View Narrative Ratings). Key View 1 will have a visual impact of moderately low. Proposed changes within the area are primarily obscured by a planned project (the LB Must Facility), and viewer response will be moderately low as a result. Build Alternative 3 will remove the existing Shoemaker Bridge, however because LB MUST obscures the view of both existing and new bridge, the removal of the bridge will not create a substantial change in visual impact. Key Views 2 and 3 will experience a higher visual impact (moderate and moderately high, respectively); however, the proposed changes do not result in an adverse visual impact within the project limits because these changes, considered as positive changes, will increase continuity with the addition of park space within the Key View 3 and increased unity within a cohesive and continuous new bridge and ramp elements within Key View 2.

Key View 1 viewer response will be moderate due the obstructed view observed by highway neighbors of the proposed new bridge and transportation and natural views consistent with existing views for highway users. The changes within Key Views 2 and 3 are considered a positive net impact due to the moderately low (Key View 2) and moderate (Key View 3) viewer response to unity, vividness, and intactness. Build Alternative 2 (Design Options A and B) will repurpose a portion of NB existing Shoemaker Bridge for non-vehicular use/open space, and Build Alternative 3 (Design Option A and B) will remove the existing Shoemaker Bridge. Resource changes and viewer response will not differ greatly between alternatives. Both Alternatives are consistent with the existing transportation environment within VAU-1. Therefore, the overall viewer response is considered to be moderate within VAU-1.

## **Visual Assessment Unit 2 (VAU-2)**

### **KEY VIEW 4 – View to the north from Ocean Boulevard, over SB West Shoreline Drive.**

Key View 4 focuses on SB Shoreline Drive, Cesar E. Chavez Park, and a portion of NB Shoreline Drive. The visual character of the view is comprised by a diversity of textures comprised of vegetation and roadway surfaces, as well as horizontal lines extending from the foreground into the background along SB West Shoreline Drive. The existing roadway creates a form that dominates the view. The scale of the park space and vegetated areas, as well as the green color, provides continuity within Key View 4.

The green of the vegetation and gray color of the roadway is typical of any roadway flanked by vegetation. This view of SB Shoreline Drive is not unique or memorable. As a result, the vividness of the view is considered moderate. Mature trees obscure the view of the LA River and create a limited view of the

natural environment. The scale of natural features on either side of SB Shoreline Drive adds to the unity and intactness of the view. A partial view of NB West Shoreline Drive is visible to the right of Key View 4. Therefore, the unity and intactness of the view is moderately low. Based on the discussion above, the visual quality of Key View 4 is moderate. Figure 14 shows the existing Key View 4.

**Figure 14. Key View 4 - Existing Condition**



### **Resource Change**

The proposed Project will remove NB West Shoreline Drive and realign SB West Shoreline Drive to accommodate two-way traffic. Proposed changes under Build Alternatives 2 and 3 (Design Options A and B) would maintain the gray of the roadway and green vegetation flanking the roadway remaining consistent with the existing setting for vividness. Therefore, the vividness of the view will remain moderate. With the removal of roadway elements and slight adjustments to the current roadway alignment, unity within this key view will remain moderately low with the same forms comprising the view. SB West Shoreline Drive, which will become West Shoreline Drive with the proposed Project changes under Alternatives 2 and 3 (Design Options A and B), will still bisect the existing natural park environment; however, NB West Shoreline Drive will be removed and incorporated into Cesar E. Chavez Park. As a result, the intactness of the view will be considered moderate. Based on the information above, the resource change for Key View 4 will be considered moderately low.

### **Viewer Response**

The viewer exposure will be similar to the existing view; however, existing SB Shoreline Drive will be realigned and slightly widened to accommodate two-way traffic. All proposed changes will occur below the users view and users will likely not see the changes. Neighbors, who have the option to extend their exposure within this key view, may notice the change more than users. Therefore, viewer response is considered low.

**KEY VIEW 5 – View to the west from SB West Shoreline Drive, approximately 325ft east of the grade separation at Golden Shore.**

Key View 5 focuses attention on the grade separation over Golden Shore and West Shoreline Drive. The visual character of Key View 5 is dominated by the form created by the roadway and the horizontal lines within the roadway, the grade separation at Golden Shore and West Shoreline Drive, existing fencing, and other roadway elements. The scale of the SB and NB West Shoreline Drive dominate the view. Smooth texture and gray colors of the roadway versus the rough texture and vivid green color formed by the adjacent ornamental vegetation help to create diversity within the view. Because the nature of this view consists predominately of transportation uses, some continuity exists within the view.

The vividness of the view is moderately low due to the scale of the roadways and transportation elements. The unity of the view is low due to the poor integration of roadways and vegetation in the view. West Shoreline Drive bisects the landscape and creates a large transportation form within the middle-ground creating a moderately low intactness. Based on the factors evaluated above, visual quality is moderately low.

In the existing condition, the foreground is dominated by West Shoreline Drive, the middle ground is comprised of landscaped medians and new at-grade intersection of Golden Avenue and West Shoreline Drive, and vegetation (consisting of mature trees) and commercial buildings are visible in the background. Figure 15 presents the existing Key View 5. A photorealistic simulation has been prepared for this Key View (Figure 16).



**Figure 15. Key View 5 - Existing Condition**



**Figure 16. Key View 5 Photorealistic Simulation**



Disclaimer: Aesthetic features in above photorealistic simulation are subject to change during the design phase.

## **Resource Change**

The proposed Project under Alternatives 2 and 3 (Design Options A and B) will remove the grade separation at Golden Avenue and West Shoreline Drive and realign Golden Avenue to form an at-grade intersection. The visual character of the proposed Project under Alternatives 2 and 3 (Design Options A and B) will be compatible with the existing visual character of the corridor. Vividness will be moderate for the proposed Project with the increased view of vegetated areas surrounding the roadway. The new at-grade intersection will remove some of the horizontal lines that were formed by the grade separation at Golden Shore to create a moderate unity within the proposed view. Intactness of the view will become moderately high with the removal of the existing grade separation at Golden Shore and West Shoreline Drive; the view will show more vegetation and open space and will focus less on the form created by the existing grade separation structure at Golden Shore and West Shoreline Drive. The visual quality of the proposed view will become moderately high and benefit the view. Modifications associated with this area of the Project (Ocean Boulevard to the southern extent) are subject to CCC jurisdiction and will ensure visual and aesthetic compliance with the City's LCP to meet CCC standards. Based on the changes examined above, the resource change for Key View 5 will be considered moderate.

## **Viewer Response**

The viewer exposure will be moderately high due to the location of the intersection, and the potential increase in duration of the view caused by the new traffic signal controlled intersection of West Shoreline Drive and Golden Shore. Both highway users and neighbors will equally be exposed to the changes within the view. Additional areas of vegetation and open space will result in a positive visual change within the view and a moderately high viewer sensitivity. As a result, viewer response will be moderately high for this key view.

## **SUMMARY OF VISUAL IMPACTS OF VISUAL ASSESSMENT UNIT 2**

VAU-2 is centered on the visual character and resources relating to the local roadway improvements within the southern portion of the Project limits. Proposed Project changes under both Build Alternatives 2 and 3 (Design Options A and B) within VAU-2, consists of the realignment of SB Shoreline Drive to accommodate two-way traffic, the removal of NB Shoreline Drive and the incorporation of that space into Cesar E. Chavez Park, and the removal of the grade separation at Golden Shore and West Shoreline Drive for a new at-grade intersection. These changes will be consistent with the transportation nature of the existing area within VAU-2.

The visual impact will range from moderately low to moderately high, shown in Table 2. Proposed changes within the area of Key View 4 are the realignment of SB Shoreline Drive and the incorporation of that vacated space left by the removal of NB Shoreline Drive into Cesar E. Chavez Park. Key View 4 viewer response is low due to the similarities within the existing view and the new additional Cesar E. Chavez Park space. As a result Key View 4 will have a visual impact of moderately low and Key View 5 will have a visual impact of moderately high.

While this Key View 5 will have a higher visual impact compared to Key View 4, the proposed changes do not create a negative visual impact. The removal of grade separation at Golden Shore creates a positive visual impact within Key View 5 with the addition of vegetation and the increase the visibility of vegetated

spaces nearby. Design would be consistent with the City’s General Plan and LCP. These resource changes will increase the intactness and unity within the view. Build Alternative 2 (Design Options A and B) will repurpose the existing Shoemaker Bridge and Build Alternative 3 (Design Options A and B) will remove the existing Shoemaker Bridge. Changes in Build Alternatives do not effect project changes within VAU-2, since all improvements within the key views identified in VAU-2 do not reflect the areas of the improvements that would show differences between the two alternatives and design options. Therefore, resource changes and viewer response will not differ between alternative nor design option. Both Alternatives are consistent with the existing transportation environment within VAU-2.

**VISUAL ASSESSMENT UNIT IMPACT SUMMARY**

Table 2 summarizes and compares the narrative ratings for visual resource change, viewer response, and visual impacts between alternatives for each key view.

**Table 2. Summary of Key View Narrative Ratings**

VISUAL ASSESSMENT UNIT	KEY VIEW	ALTERNATIVE 2 & 3 (Design Option A &B)		
		Resource Change	Viewer Response	Visual Impact
VAU1	1	ML	M	ML
	2	MH	ML	M
	3	MH	M	MH
VAU2	4	ML	L	ML
	5	M	MH	MH

**IX. PROJECT VISUAL IMPACT SUMMARY**

**Permanent Visual Impacts**

**Alternative 1 (No Build)**

Under Alternative 1 (No Build), the proposed Project will not result in any construction activities associated with the Build Alternatives. Since the proposed Project under the Build Alternatives will not occur, no permanent impacts to the existing and future visual quality are anticipated. A separate planned capital improvement project, LB MUST, will be constructed regardless of proposed Project. Visual impacts as a result of the LB MUST facility, will be addressed by the environmental document prepared for that project. As such, no adverse impacts to visual resources are anticipated under Alternative 1 (No Build).

**Build Alternatives 2 and 3 (Design Options A and B)**

Key long term impacts for the proposed Project under Build Alternatives 2 and 3 (Design Options A and B) will include views of the new Shoemaker Bridge, the structures comprising of either Design Option A (roundabout) or Design Option B (“Y” Interchange), and additional useable park space in Cesar E. Chavez

Park. Specifically, under Alternative 2, the existing Shoemaker Bridge would be repurposed for open space/park use. This provides an additional benefit to the viewers utilizing roadways within the Project limits, LARIO Trail users, and highway neighbors utilizing the parks spaces within the area of the Project limits.

Visual impacts will range from moderately low to moderately high. However, the overall change to the visual resources and views as a result of the proposed Project under Alternatives 2 and 3 (Design Options A and B) are generally positive and an improvement to the natural landscape within the Project limits. New open space and additional useable park space combined with surrounding street improvements and removal will improve the intactness of the area within the Project limits. The replacement of the existing Shoemaker Bridge, the additional park space, and improved continuity of the at-grade intersection of Golden Shore and West Shoreline Drive would result in a positive visual impact and increase the vividness and unity. Resource changes will result in additional hardscape permanent elements, including but not limited to bridge and ramp piers, roadways, and the new Shoemaker Bridge. Minimization Measure VIS-3, as defined in Section XI, below, would minimize potential impacts related to hardscape elements as a result of the proposed Project and no adverse impacts are anticipated.

No major land form features are located within the viewshed of the Project limits due to the low elevation at the mouth of the LA River to the Pacific Ocean. No outstanding scenic vistas and/or visual features would be impacted by the proposed Project. Construction of the proposed Project will require removal of trees and other vegetation in the ROW. Tree and vegetation removal on public lands will comply with City and Caltrans landscaping policies as detailed in Minimization Measures VIS-1 and VIS-2. Therefore, no adverse impacts are anticipated.

The area within the proposed Project under Alternatives 2 and 3 (Design Options A and B) receives light at night from traffic, street lighting, and the lighted the new Shoemaker Bridge; signalization at the intersections; freeway on- and off- ramps; the surrounding commercial zone; and limited light sources from nearby residential developments. Additional shadows will result as a part of the proposed Project under Build Alternatives 2 and 3 (Design Options A and B). The proposed Project under Build Alternatives 2 and 3 (Design Options A and B) would result in the removal of existing transportation features; however the overall net impact of shadows would increase as a result of the proposed Project under Build Alternatives 2 and 3(Design Options A and B). Existing lighting on the streets and along the ramps would be modified or relocated as a part of the proposed Project in those areas where improvements are proposed. Minimization Measure VIS-4, as defined in Section XI, below, would minimize potential impacts related to light and glare; therefore, no permanent adverse impacts are anticipated.

Build Alternative 3 will be similar to the impacts of Build Alternative 2 with the exception that in Build Alternative 3 will completely remove existing the Shoemaker Bridge. Since the only difference in visual features would be the removal new Shoemaker Bridge, as seen in Key Views 1 and 2, the same impacts identified in Build Alternative 2 (Design Options A and B) will be addressed by Measures VIS-1 through VIS-4 and no permanent adverse impacts are anticipated.

## Temporary Visual Impacts

### Alternative 1 (No Build)

Under Alternative 1 (No Build), the proposed Project will not result in any construction activities associated with the Build Alternatives. Therefore, no temporary adverse impacts to the existing and future visual quality are anticipated.

### Build Alternatives 2 and 3 (Design Options A and B)

Temporary visual impacts will occur during the construction of Build Alternative 2 and 3, and will include activities such as construction materials and staging, the development of temporary roadside barriers, truck hauling, excavation, removal of existing mature plantings, and construction and detour signage. Project construction is anticipated to take 36 months, with an overall area of approximately 62 acres to be temporarily disturbed. As a result of construction, mature trees will be removed, and minimal replacement landscaping will be provided prior to the implementation of the proposed park improvements planned by the City. Minimization Measures VIS-1 and VIS-2, as defined in Section XI below, would minimize potential impacts to landscaping and tree removal, respectively. However, these impacts are considered temporary and will cease upon completion of construction. With the implementation of Measures VIS-1 and VIS-2, no temporary adverse impacts are anticipated.

## X. CUMULATIVE VISUAL IMPACT

Cumulative impacts are those resulting from past, present and reasonably foreseeable future actions, combined with the potential visual impacts of this Project. For this Project, it has been determined that the following cumulative visual impacts may occur.

*LB MUST* is a separate planned capital improvement project located on east and west banks of the LA River and SR-710. The LB MUST project includes facilities intended to improve water quality associated with urban runoff in the greater Project area. The two primary project components of the LB MUST project are the MUST facility and the conveyance facilities to carry urban runoff to the MUST facility for treatment. The MUST facility will be located along the east bank of the LA River, immediately north of the existing Shoemaker Bridge. The LB MUST project will be integrated with the Drake/Chavez Park Master Plan improvements and by providing pedestrian and bicyclist access to the LA River, and coastal post detention basins. These coastal post detention basins will be located just south of the existing bridge, and will surround the eastern terminus support structure of the proposed Shoemaker Bridge. LB MUST is scheduled for construction January 2018 with a completion goal date of May 2021. The visual impact of LB MUST will positively affect the visual impact within the Project limits.

The *Drake/Chavez Greenbelt project* proposes to construct a new 57-acre public park along the lower Los Angeles River that will link Cesar E. Chavez Park to Drake Park, as well as Loma Vista Park. The project will include developments such as the Cesar Chavez/Greenbelt link, LARIO Trail access, wetlands, a community and urban nature center, community gardens, and various new sports and recreation facilities, among other substantial improvements. This project will have a positive visual impact on the project limits by adding natural landscape features within the Project limits.

*Drake Park Soccer Field* project proposes to develop 8.75 acres of new park facility on existing vacant parcels. The proposed project would consist of one striped soccer field, large landscaped open space/passive park areas, a pedestrian walking trail, restroom facilities, and parking. The proposed park would incorporate the existing Loma Vista Park into the new park layout by removing the existing chain-link fencing along the northeastern portions of Loma Vista Park. In addition, the Drake Park Soccer Field would use a portion of a City-owned parking lot located near the northwest area of the project site to accommodate the proposed passive park space. The proposed Drake Park Soccer Field Project would be linear in form and would be characterized by an 8-foot wide pedestrian trail traversing the park from the northeast to southwest. The northeast entrance at Anaheim Street and North Daisy Avenue is envisioned to be a gateway entrance to the proposed park. Drake Park Soccer Field is currently under construction, and project completion is anticipated for July 2019. This project will have a positive visual impact in the area of the project limits.

Based on the separate planned projects described above, there would be an overall positive benefit in the surrounding area of the proposed Project due to the increase in available park space and open space regardless of the implementation of the proposed Project. In addition, each project has undergone environmental clearance under CEQA and/or NEPA, and as such, has addressed both temporary and permanent visual impacts related to the implementation of their respective projects. Therefore, no adverse cumulative impacts on visual resources are anticipated.

## **XI. AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Caltrans and the FHWA mandate that a qualitative/aesthetic approach should be taken to address visual quality loss in a project area. This approach fulfills the letter and the spirit of FHWA requirements because it addresses the actual cumulative loss of visual quality due to a project. This approach also results in avoidance, minimization, and/or mitigation measures that can lessen or compensate for a loss in visual quality. The inclusion of aesthetic features in the project design, discussed in *Section II*, can help generate public acceptance of a project. This section describes additional avoidance and minimization measures to address specific visual impacts. No mitigation measures are required because no adverse impacts will result from the proposed Project. These will be designed and implemented with concurrence of the District Landscape Architect.

The following measures are designed to avoid, minimize and/or mitigate the potential adverse visual impacts associated with the implementation of the proposed project under Alternatives 2 and 3 (Design Options A and B):

- VIS-1 Landscape Plan.** During the Plans, Specifications, and Estimate (PS&E) phase, the City of Long Beach (City) will prepare a highway landscape plan that identifies all opportunities to use areas within the State right-of-way (ROW) for full landscaping consistent with the Caltrans Highway Design Manual (HDM). This will include landscaping for graded areas with plant species consistent with adjacent vegetation, and enhancement of new project structures such as ramps and tunnels to the extent feasible. This plan will incorporate all applicable procedures and requirements detailed in the Caltrans HDM, Section 902.1, Planting Guidelines (July 1 2015), and policies of the City's General Plan as applicable.

The City will incorporate the final design of the proposed project into the landscape plans for the Cesar E. Chavez Park and Drake/Chavez Park Greenbelt. The landscape plans will comply with the Goals/Objectives and Policies of the Open Space and Recreation Element of the General Plan for the City. As applicable, the landscape plans will also comply with the Goals/Objectives and the Policies of the City's Local Coastal Program.

**VIS-2 Tree Removal.** During preparation of Plans, Specifications, and Estimate (PS&E) phase, the City of Long Beach's (City) Resident Engineer will ensure that the design minimizes removal of existing mature trees. If removal of mature trees cannot be avoided, additional landscape improvements will be incorporated into the final design for these areas. The replacement ratio of any trees removed shall be determined by the City. Tree removal within the California Coastal Commission jurisdiction will comply with the goals and policies outlined in the City of Long Beach's Local Coastal Program.

**VIS-3 Hardscape Plan.** During the Plans, Specifications, and Estimate (PS&E) phase, the City of Long Beach (City) will prepare a plan to implement attractive bridge, tunnel, medians, retaining walls, and other aesthetic hardscapes. This plan will be prepared consistent with the I-710 Corridor Project and applicable goals and policies in the City's General Plan. All designs are required to comply with Caltrans standards for safety requirements and other pertinent standards. Special architectural details and aesthetic treatments that promote regional identity in terms of material, color, texture, and pattern are encouraged to be incorporated into the proposed project and shall be reviewed and approved by the City and the Caltrans District 7 Landscape Architect.

**VIS-4 Lighting Plan.** During construction, the City of Long Beach's Resident Engineer, or Designated Contractor, will ensure that energy conserving light-emitting diode (LED) lighting fixtures be selected and installed to minimize glare on adjacent properties and into the night sky. Lighting will be shielded with nonglare hoods and focused within the project right-of-way (ROW.) The lighting plan will be reviewed and approved by the City of Long Beach and the Caltrans District 7 Landscape Architect prior to construction to ensure compliance with these criteria.

## **XII. CONCLUSIONS**

The proposed Project under Alternatives 2 and 3 (Design Options A and B) will not result in permanent visual impacts with the implementation of Measures VIS-1 through VIS-4. Moreover, the project elements will have an overall positive visual impact on the existing VAUs, because the addition of the new bridge and increase in park space will keep the existing visual quality and character of the area within the proposed Project and the surrounding area from being degraded. The proposed Project under Alternatives 2 and 3 (Design Options A and B) may result from temporary impacts related to construction activities. However, with the implementation of Measure VIS-4, no adverse impacts are anticipated.

*This page is intentionally blank.*